MODIS TECHNICAL TEAM MEETING

May 13, 1994

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were Dorothy Hall, David Herring, Steve Ungar, Locke Stuart, John Barker, Yoram Kaufman, Dick Weber, Ed Masuoka, and John Bauernschub.

1.0 SCHEDULE OF EVENTS

June 15	533Q Financial Reports due to Teresa Mautino
July 15	Semi-Annual Reports due to Barbara Conboy
Sept. 19-21 (tentative)	SDST Simulation Data Workshop, Flathead Lake, MT
Oct. 19 - 21	MODIS Science Team Meeting , at GSFC Building 8 Auditorium (tentative)

2.0 MINUTES OF THE MEETING

2.1 EOS ATBD Review Summary

Salomonson announced that the EOS ATBD Peer Review went well, but that there were issues raised that will need to be revisited—especially regarding calibration. He noted that the ATBD Peer Review Panel commented that there is not enough emphasis on the Thermal IR by MODIS' Calibration Group. Also, the Panel is concerned about the emphasis on vicarious calibration methods.

Salomonson reported that the Panel has concerns about MODIS' current cloud masking plan—they feel it needs further development. For atmospheric corrections, the Panel feels there should be more commonality between each Discipline Groups' methodologies. Presentations by the Oceans and Atmosphere Discipline Groups were generally well thought out and well received. Overall, Salomonson concluded, the writing and peer review of the ATBDs was a healthy and educational exercise.

Salomonson asked John Barker to forward information on MODIS' spectral bands to Hugh Kieffer.

2.2 MODIS Project Update

Weber reported that SBRC will test the radiative cooler on the Engineering Model (EM) this weekend.

2.3 SDST Reports

Masuoka announced that he met with the MODLAND Group and took an action item to produce an outline for gridding and interpolation methods. Also, SDST

will send out a list of tools which they will provide to the MODIS Team for software development.

He announced that SDST will have a workshop at Flathead Lake, Montana, during the third week in September to discuss simulated and test data for science software development and testing.

2.4 Globally Resampled Grid Products

Ungar said he is concerned about properly sizing the Land Group's request for SDST to provide accurately co-registered data sets so that they may produce a BRDF (Bidirectional Reflectance Distribution Function) product.

Masuoka added that the Land Group asked SDST to coordinate with EDC (EROS Data Center) and MISR (Multi-angle Imaging Spectroradiometer) in developing MODIS' geolocation and gridding approaches.

2.5 MAS C-130 Installation Conflict

Ungar pointed out that a conflict between the MAS (MODIS Airborne Simulator) installation schedule and a pre-BOREAS TIMS C-130 flight needs to be resolved if MAS is to successfully participate in BOREAS.

3.0 ACTION ITEMS

1. *Barker*: Forward information on MODIS' spectral bands to Hugh Kieffer.

3.1 Previous Action Items

2. *Fleig & Herring*: Review the MODIS brochure and recommend changes / alternatives [Ongoing, will have first draft done by the end of June].
3. *Barnes*: Investigate the procedure for redesignation of channels for night data return (to Kaufman). [Barnes has determined that MODIS channels can be redesignated for night data return; however, this AI is still open.]
4. *Fleig and Ungar*: Interact with the group leaders prior to developing a MODIS data simulation plan for review at the next science team meeting by July 4.
5. *Masuoka and Fleig*: Prepare information or provide a tutorial on team member coding standards.
6. *Guenther*: Respond to Slater's letter to Kahle regarding involvement of SWAMP in EOS cross-calibration of algorithms for Level 2 data products.
7. *Fleig*: Review the impact of using C++ in MODIS algorithm development.
8. *Masuoka*: Provide Gordon's Water Leaving Radiance software to ESDIS project as a test case for the utility of massively parallel processing after a beta delivery is received from the Oceans Team. [SDST is waiting for delivery of Ocean Group's beta software.]

3.2 Closed Action Items

1. *Masuoka & Fleig*: Talk to Reber about the DAAC budget for computer hardware, versus the total DAAC budget.

2. *Masuoka*: Send out e-mail to Science Team Members about draft HDF document.
3. *Barnes & Fleig*: Specify geolocation and pointing accuracy requirements to the EOS P.M. Project (Donohoe, Pandelides).
4. *Guenther*: Propose a solution to the dead pixel problem which the Team will discuss at a future meeting. [Closed. MCST won't fix dead pixels through Level 1B data.]
5. *Fleig & Weber*: Track the new MODIS pointing stability requirement to assure that it does not become lost in the review and adoption process. [Closed]
6. *Fleig and Kempler*: Report on who will provide the different elements of a simulated MODIS Level 0 data set. [Closed. This AI is contained in # 4 above.]
7. *Fleig, Guenther, Barker & Barnes*: Discuss the issue of obtaining an hour's worth of real MODIS engineering data. [Closed. SBRC can obtain 1 hour of data.]
8. *Weber*: Check significance of an ADS added to MODIS to improve geolocation accuracy and where to place an ADS on the instrument. [Closed. The predominant mechanical disturbances on EOS AM-1 come from mechanical coolers on other instruments. These coolers operate in the 40 - 50 Hz range. The purpose of an angular displacement sensor on MODIS or somewhere on EOS AM-1 would be to help determine the instantaneous pointing of MODIS.

Steve Neeck of GSFC is conducting an analysis of the effects of EOS AM-1 high-frequency disturbances on MODIS. The dominant disturbances come from the ASTER and MOPITT Stirling cycle coolers. When current error bars are applied to the preliminary analysis results, the ability of MODIS to meet its pointing and registration requirements in the presence of jitter from the Stirling cycle coolers is not yet certain. Analysis efforts will continue, in order to increase accuracy of the results.]